

EXPRESS MAIL LABEL NO. EV 402900025 US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Kyle A. Brownell, et al.  
Serial No.:  
Filed: Herewith  
Examiner:  
Group Art Unit:  
Docket No.: 410193.90155  
Title: *Two Stage Air Filter*

---

**INFORMATION DISCLOSURE STATEMENT  
PURSUANT TO 37 CFR 1.97**

---

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.97-1.98, Applicant is submitting a listing of documents on several Forms PTO-1449. In particular, a copy of each Form PTO-1449 submitted during the prosecution of the patent application from which the present patent application claims priority, listing the cited documents, is enclosed. Applicant further encloses herewith a copy of each non-U.S. Patent publication cited in the enclosed Forms PTO-1449.

Pursuant to MPEP §609, the submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any rights to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

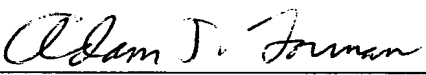
Applicant is not commenting on the relevance of the identified references beyond the comments made along with the Supplemental IDS filed April 8, 2004 in the parent application, and further is not discharging the duty of the Examiner to review the cited references and draw his own conclusions regarding the degree of relevance of each reference with respect to the pending claims.

This information disclosure statement is being filed before the mailing of a first Office Action for the continuation application and, hence no fees should be due for this communication. Should there be any charges involved, the Commissioner is hereby authorized to charge Deposit Account No. 17-0055.

Applicant respectfully requests that the listed documents be considered by the Examiner, be made of record in the present application, and that an initialed copy of Form PTO-1449 be returned in accordance with MPEP §609.

Respectfully submitted,

Kyle A. Brownell

By:   
Adam J. Forman  
Reg. No. 46,707  
Attorney for Applicant  
Quarles & Brady  
411 E. Wisconsin Avenue, Suite 2040  
Milwaukee WI 53202-4497  
(414) 277-5405

MKE\5568055

**Complete if Known**

*(Use as many sheets as necessary)*

1

of

1

Application Number	10/090,040
Filing Date	03/01/2002
First Named Inventor	Kyle A. Brownell
Art Unit	1742
Examiner Name	Robert A. Hopkins
Attorney Docket Number	410193.90155

## U. S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

[illegible]

**Examiner  
Signature**

Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1

of

1

**Complete if Known**

Application Number	10/090,040
Filing Date	March 1, 2002
First Named Inventor	Kyle A. Brownell
Art Unit	1724
Examiner Name	Robert A. Hopkins
Attorney Docket Number	410193.90155

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	1	US- 3,970,558	07-20-1976	Lee	
	2	US- 4,610,705	09-09-1986	Sarnosky, et al.	
	3	US- 4,708,000	11-24-1987	Besik	
	4	US- 4,900,341	02-13-1990	Csabai	
	5	US- 4,976,760	12-11-1990	Helferich, et al.	
	6	US- 5,124,177	06-23-1992	Kasmak, Jr., et al.	
	7	US- 5,171,720	12-15-1992	Kawakami	
	8	US- 5,384,290	01-24-1995	Brezny	
	9	US- 5,497,620	03-12-1996	Stobbe	
	10	US- 5,567,392	10-22-1996	Becker, et al.	
	11	US- 5,693,298	12-02-1997	Bar-Ilan	
	12	US- 5,810,895	09-22-1998	Staehle, et al.	
	13	US- 6,051,199	04-18-2000	Teller	
	14	US- 6,165,519	12-26-2000	Lehrer, et al.	
	15	US- 6,237,587	05-29-2001	Sparling, et al.	
		US-			
		US-			
		US-			
		US-			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>		<b>Application Number</b>	10/090,040
		<b>Filing Date</b>	March 1, 2002
		<b>First Named Inventor</b>	Kyle A. Brownell
		<b>Group Art Unit</b>	1724
		<b>Examiner Name</b>	
Sheet		of	
		<b>Attorney Docket Number</b>	410193.90155

[illegible][illegible]

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				Application Number	10/090,040
				Filing Date	May 1, 2002
				First Named Inventor	Kyle A. Brownell
				Group Art Unit	1724
				Examiner Name	
				Attorney Docket Number	410193.90155
Sheet	1	of	1		

[illegible][illegible]

Examiner Signature	Date Considered
-----------------------	--------------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**









Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO

# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

## **Complete if Known**

Application Number	10/090,040
Filing Date	March 1, 2002
First Named Inventor	Brownell, et al.
Art Unit	1724
Examiner Name	Robert A. Hopkins
Attorney Docket Number	410193.90155

Sheet 1 of 5

## **U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- RE 34,636	06/14/1994	Bivens	
		US- 3,970,558	07/20/1976	Lee	
		US- 4,082,661	04/04/1978	Aoki et al.	
		US- 4,104,163	08/01/1978	Grutsch	
		US- 4,118,206	10/03/1978	Hagendoom	
		US- 4,172,031	10/23/1979	Hall et al.	
		US- 4,177,142	12/04/1979	Halbfoster	
		US- 4,231,768	11/04/1980	Seibert et al.	
		US- 4,238,334	12/09/1980	Halbfoster	
		US- 4,328,105	05/04/1982	Arbuckle	
		US- 4,485,622	12/04/1984	Takagi et al.	
		US- 4,595,509	06/17/1986	Fox et al.	
		US- 4,645,605	02/24/1987	Durham	
		US- 4,721,624	01/26/1988	Schumann	
		US- 4,805,525	02/21/1989	Bivens	
		US- 4,816,499	03/28/1989	Nomura et al.	
		US- 4,908,050	03/13/1990	Nagashima et al.	
		US- 5,003,693	04/02/1991	Atkinson et al.	
		US- 5,154,743	10/13/1992	Takato et al.	

## **FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
		GB 1,014,594	12/31/1965	Orlo Clair Norton		
		GB 1,255,268	12/01/1971	US Atomic Energy Comsn		
		DD 74,699	07/12/1970	Karl Winter		
		EP 1,238,679	09/11/2002	ENEA		
		WO 02/070105A2	09/12/2002	Johnson, James R.		

Examiner  
Signature

Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/090,040
		Filing Date	March 1, 2002
		First Named Inventor	Brownell, et al.
		Art Unit	1724
		Examiner Name	Robert A. Hopkins
Sheet 2 of 5	Attorney Docket Number	410193.90155	

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		G. Elliott et al, "The increasing Use of Ceramic Filters in Air Pollution Control Applications," Filtr. Sep. Vol. 34 No. 4 pp. 331-335, 1997, Elsevier Science Ltd.	
		N. Singh et al., "Precess Design and Economic Analysis of a Ceramic Membrane System for Microfiltration of Com Starch Hydrolysate," Journal of Food Engineering, Vol. 38 No. 1 pp. 57-67, 1998, Elsevier Science Ltd.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.